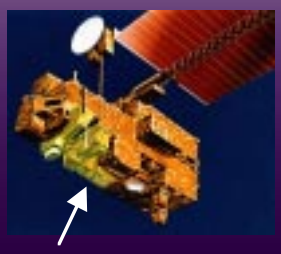
DAR Tool



The ASTER instrument on-board EOS AM-1.

The Data Acquisition Request (DAR) Tool enables selected users to submit data acquisition requests for the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) instrument on-board the Terra satellite. A DAR enables an ASTER-authorized user to indirectly task the satellite to collect data at times and locations specified by the user. The DAR concept can be expanded to other space-borne instruments, however, at the present time, the ASTER instruments are the only instruments that the DAR tool supports. DARs are submitted through the Earth Observing System Data and Information System (EOSDIS) Core System (ECS) to the ASTER Ground Data System (GDS) in Japan. The ASTER GDS controls scheduling of the ASTER instruments and provides the collected data as Level 1A (L1A) and Level 1B (L1B) data to the EROS Data Center.

The DAR Tool has two parts. One part provides functionality to submit DARs and the other enables users to query the ASTER-GDS database for DAR information. The DAR query functionality allows access to the database of DARs stored by GDS, including DAR status information and a list of parameters and settings for each DAR submitted to ASTER-GDS.

ASTER users will be notified of their data availability automatically and may download this data via the ECS Java Earth Science Tool (JEST). Typically, end users will download L1B processed granules (granules processed to ECS standards), although both L1A and L1B granules are sent to ECS by ASTER GDS. ASTER GDS sends the data via a D3 tape.

Any EOSDIS registered users may have access to the DAR. However, only ASTER-authorized users, people authorized by the U.S. ASTER Science Team (in the US) and the Japanese ASTER Science Team (in Japan), will be able to submit a DAR or query the ASTER DAR database.

ASTER is the only high spatial resolution instrument on-board the Terra platform. ASTER will be used to obtain detailed maps of surface temperature, emissivity, reflectance, and elevation. It will also be used with other instruments--MODIS, MISR, and CERES--that monitor the Earth at moderate to coarse spatial resolutions. ASTER's ability to serve as a "zoom" lens for these other instruments will be particularly important for change detection, and calibration/validation studies.

1616 McCormick Drive, Upper Marlboro, MD 20774 E-mail: scoot@eos.hitc.com